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EXAMINER

MAKI, STEVEN D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/559,149	Applicant(s) KRAHL ET AL.	
	Examiner Steven D. Maki	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 and 37 is/are pending in the application.
- 4a) Of the above claim(s) 11-19,28-30,32-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,20-27,31,35 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12-27-06</u> . | 6) <input type="checkbox"/> Other: _____ |

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1) **It is noted that the English original specification and English original claims are found in the 20 page E-Dan entry dated 12-2-10.**

2) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3) Claims 1-35 and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of "in at least one of a positive and a non-positive manner" (emphasis added). The original disclosure describes "a positive or non-positive connection" instead of "in at least one of a positive and a non-positive manner".

4) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Pellaton

6) **Claims 1-2, 21, 23-25, 27 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pellaton (US 2,982,325).**

Pellaton discloses an anti-slip element (anti-slip stud) for a tire comprising a cylindrical hard metal element 2 ("insertion element"), a cylindrical rubber jacketing 5 ("sleeve") and "base body" comprising a "recess" in a cylindrical sleeve 3. Pellaton does not specifically recite that the hard metal is an alloy. However, it would have been obvious to one of ordinary skill in the art to use a hard alloy for the hard metal tip of Pellaton's tire stud since it is taken as well known / conventional in the tire stud art to use a hard alloy for a hard tip of a tire stud for improving traction of a tire on snow/ice.

Salakari

7) **Claims 1-2, 23-25, 27 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salakari (US 3,884,284).**

Salakari discloses a stud for a tire comprising hard metal tip 4, sleeve 1, sleeve 2, shank 3 and flange 5. As can be seen from Figure 2, the hard metal tip 4 is located in a recess of shank 3. The claimed insertion element corresponds to hard metal tip. The claimed sleeve element reads on sleeve 1. The claimed base body reads on (1) shank 3 with flange 5 or (2) the combination of sleeve 2 and shank 3 with flange 5 wherein the sleeve 2 defines a "flange" relative to the shank 3. Salakari does not specifically recite that the hard metal is an alloy. However, it would have been obvious

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to one of ordinary skill in the art to use a hard alloy for the hard tip of Salakari's tire stud since it is taken as well known / conventional in the tire stud art to use a hard alloy for a hard tip of a tire stud for improving traction of a tire on snow/ice.

Nurmi et al

8) **Claims 1-2, 21, 23, 25, 27, 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nurmi et al (WO 91/00185).**

Nurmi et al discloses a stud for a tire comprising a frame 3 ("base body") having a flange 5 and a recess, a hard metal piece 4 in the recess and a sleeve 1 having a flange 6. Nurmi et al does not specifically recite that the hard metal is an alloy. However, it would have been obvious to one of ordinary skill in the art to use a hard alloy for the hard piece 4 of Nurmi et al's tire stud since it is taken as well known / conventional in the tire stud art to use a hard alloy for a hard tip of a tire stud for improving traction of a tire on snow/ice.

Russia 585

9) **Claims 1-4, 20-21, 23-25, 27, 31, 35 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Russia 585 (RU 2117585).**

Russia 585 discloses a tire comprising studs wherein each stud comprises a **wear resistant head portion 5**, a **central hollow rod 3** and a **housing 1** wherein the wear resistant head portion 5 is inserted into the central hollow rod 3 and the housing 1 is intercoupled rigidly with the central hollow rod 3. The hollow rod 3 can be made of sheet metal. The housing 1 can be made of rubber, plastic or sheet metal. See Figures 1-15 and abstract. In Figures 7 and 9, the central hollow rod 3 has a flange, the wear

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resistant head portion 5 is inserted in the central hollow rod 3 and the housing 1 is disposed on an upper section of the central hollow rod in which wear resistant head portion 5 is inserted. In both Figures 7 and 9, the wear resistant head portion 5 protrudes beyond the end of the housing 1 and the end of the central hollow rod 3. In Figure 7, the housing 1 has a flange. In Figure 9, the outer surface of the housing 1 has a spherical shape. In Figure 12, the stud comprises a "insertion element" (wear resistant head portion 5), "base body" (inner central hollow rod 3 and outer central hollow rod having upper part 19 and lower part 20) and "sleeve element" (housing 22). During a partial oral translation of Russia 585, the following information was obtained: The wear resistant head is a conical hard alloy fixed in a hollow bar. Figure 9 depicts an antiskid stud analogous to Figure 7. The body or housing is a sphere made of rubber or plastic material.

As to claim 1, the claimed anti-skid spike is anticipated by Russia 585's anti-skid stud as shown in figure 7, Figure 9 or Figure 12. The claimed insertion element reads on the wear resistant portion 5. The claimed sleeve element reads on the housing 1. The claimed base body reads on central hollow rod 3. The claimed receiver section of the base body reads on the section of the central hollow rod 3 in which the wear resistant portion 5 is inserted. The claimed "recess" reads on the space within the central hollow rod 3. It is noted that the space within the central hollow rod 3 is closed at the flanged end by tire material when the stud is incorporated in the tire. It is noted that Figures 6 and 15 of Russia 585 shows the bottom opening of the central hollow rod of the Figure 4 stud being closed by tire material. The subject matter of "a sleeve

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element (20) applied on the receiver section (11) which fixes the insertion element (30) inserted into the recess (14) of the base body (10) in at least one of a positive manner and a non-positive manner" (emphasis added) reads on the wear resistant head 5 being secured in a section of the central hollow rod 3 wherein the housing 5 is intercoupled rigidly on an outer surface of the section of the central hollow rod in which the wear resistant head portion 5 is secured.

As to claim 2, the wear resistant head portion 5 projects past the housing 1.

As to claim 3, Russia describes the wear resistant head portion as being "conical".

As to claim 4, Russia 585 discloses using "hard alloy" for the wear resistant head portion 5, sheet metal for the hollow rod 3 and rubber, plastic or sheet metal for the housing 1. A rubber, plastic or sheet metal housing 1 (sleeve) has a wear resistance less than that of a hard alloy wear resistant head portion 5.

. As to claim 20, the wear resistant head portion 5 projects past the housing 1.

As to claim 21, Russia describes the wear resistant head portion as being "conical".

As to claim 23, housing 1 (sleeve element) forms a "closed ring".

As to claim 24, note the shape of the housing 1 (sleeve element) in Figures 7, 9 or 12.

As to claim 25, the housing 1 (sleeve element) is rotationally symmetrical.

As to claim 27, the outer surface of the upper section (receiver section) of the central hollow rod 3 (base body) is cylindrical and the inner surface of the housing 1 (sleeve element) is cylindrical. See Figure 7, Figure 9 or Figure 12.

As to claim 31, note the "detent" between the lower part 20 and the upper part 19 of the "base body".

As to claim 35, see Figure 7 in which the housing 1 (sleeve element) has a flange and the central hollow rod 3 (base body) has a flange.

As to claim 37, the outer surface of the upper section (receiver section) of the central hollow rod 3 (base body) is cylindrical and the inner surface of the housing 1 (sleeve element) is cylindrical. See Figure 7, Figure 9 or Figure 12.

10) Claims 5-8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russia 585 (RU 2,117,585) in view of Mironov et al (WO 99/56976).

As to claims 5-8 and 22, it would have been obvious to one of ordinary skill in the art to provide the material of the base body such that it has less wear resistance than that of the insertion element and the sleeve element since (1) Mironov et al, also directed to a tire stud, suggests using fiber reinforced plastic for the body 1 of a tire stud and (2) Russia 585 teaches using metal for the sleeve and hard alloy for the wear resistant head portion.

11) Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russia 585 (RU 2,117,585) in view of Mironov et al (WO 99/56976) as applied

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above and further in view of Nurmi et al (WO 91/00185) or Walrave et al (US 3,987,831).

As to claims 9 and 10, it would have been obvious to one of ordinary skill in the provide the sleeve element with a diameter larger than the diameter of the flange of the base body in view of (1) Russia 585's teaching to provide the sleeve element 5 with a flange, (2) Russia 585's teaching to provide the base body 3 with a flange and (3) the suggestion from either Nurmi et al or Walrave et al to provide a stud with two flanges wherein the diameter of the upper flange near the hard tip is larger than the diameter of the lower flange.

12) Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Russia 585 (RU 2,117,585) in view of Nurmi et al (WO 91/00185) or Walrave et al (US 3,987,831).

As to claim 26, it would have been obvious to one of ordinary skill in the provide the sleeve element with a diameter larger than the diameter of the flange of the base body in view of (1) Russia 585's teaching to provide the sleeve element 5 with a flange, (2) Russia 585's teaching to provide the base body 3 with a flange and (3) the suggestion from either Nurmi et al or Walrave et al to provide a stud with two flanges wherein the diameter of the upper flange near the hard tip is larger than the diameter of the lower flange.

Finnish 861/64

13) **Claims 1-4, 20-21, 23-25, 27, 31, 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finnish 861/64 (FI 861/64) in view of Russia 585 (RU 2,117,585).**

Finnish 861/64 discloses a tire stud comprising a **hard tip 2** and a **base body 1 having a flange 3 and a recess 5**. See Figures 1-4. It is noted that the word "rengas" in Finnish means "tire" and that when there are case endings, "rengas" becomes --renkaa--. In Figure 1, the tire stud has an lower flange 3. In Figure 3, the tire stud has a lower flange 3 and an upper flange 3'. Finnish 861/64 does not recite a sleeve.

As to claim 1, it would have been obvious to one of ordinary skill in the art to provide the tire stud of Finnish 861/64 with a sleeve element as claimed since Russia 585, also directed to a tire stud, suggests providing the base body 3 of a tire stud having a hard tip 5 with a "sleeve" 1 to provide increased stability and fixation in the tire (abstract, Figures 7, 9 and 12). Furthermore, it would have been obvious to use a hard alloy for the hard tip 2 of the tire stud of Finnish 861/64 since Russia teaches using hard alloy for a hard tip 5 of a tire stud.

As to claim 2, Russia shows the wear resistant head portion 5 projecting past the housing 1 ("sleeve element").

As to claim 3, Russia suggests forming the wear resistant head portion 5 (hard tip) with a "conical" shape.

As to claim 4, Russia 585 discloses using "hard alloy" for the wear resistant head portion 5, sheet metal for the hollow rod 3 and rubber, plastic or sheet metal for the

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housing 1. A rubber, plastic or sheet metal housing 1 (sleeve element) has a wear resistance less than that of a hard alloy wear resistant head portion 5.

. As to claim 20, the wear resistant head portion 5 projects past the housing 1.

As to claim 21, Russia describes the wear resistant head portion as being "conical".

As to claim 23, housing 1 (sleeve element) suggested by Russia 585 forms a "closed ring".

As to claim 24, note the shape of the housing 1 (sleeve element) in Figures 7, 9 or 12 of Russia 585..

As to claim 25, the housing 1 (sleeve element) suggested by Russia 585 is rotationally symmetrical.

As to claim 27, the upper section (receiver section) of the outer surface of the base body 1 of the tire stud of Finnish 861/64 is cylindrical, the outer surface of the upper section (receiver section) of the central hollow rod 3 (base body) of Russia 585 is cylindrical and the inner surface of the housing 1 (sleeve element) of Russia 585 is cylindrical. See Figure 7, Figure 9 or Figure 12 of Russia 585.

As to claim 31, Russia 585 suggests providing a "detent" between the lower part 20 and the upper part 19 of a "base body".

As to claim 35, see Figure 7 of Russia 585 in which the housing 1 (sleeve element) has a flange and the central hollow rod 3 (base body) has a flange.

As to claim 37, the upper section (receiver section) of the outer surface of the base body 1 of the tire stud of Finnish 861/64 is cylindrical, the outer surface of the

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upper section (receiver section) of the central hollow rod 3 (base body) of Russia 585 is cylindrical and the inner surface of the housing 1 (sleeve element) of Russia 585 is cylindrical. See Figure 7, Figure 9 or Figure 12 of Russia 585.

14) Claims 5-8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finnish 861/64 (FI 861/64) in view of Russia 585 (RU 2,117,585) as applied above and further in view of Mironov et al (WO 99/56976).

As to claims 5-8 and 22, it would have been obvious to one of ordinary skill in the art to provide the material of the base body such that it has less wear resistance than that of the insertion element and the sleeve element since (1) Mironov et al, also directed to a tire stud, suggests using fiber reinforced plastic for the body 1 of a tire stud and (2) Russia 585 teaches using metal for the sleeve element and hard alloy for the wear resistant head portion.

15) Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finnish 861/64 (FI 861/64) in view of Russia 585 (RU 2,117,585) and Mironov et al (WO 99/56976) as applied above and further in view of Nurmi et al (WO 91/00185) or Walrave et al (US 3,987,831).

As to claims 9 and 10, it would have been obvious to one of ordinary skill in the art to provide the sleeve element with a diameter larger than the diameter of the flange of the base body in view of (1) Russia 585's teaching to provide the sleeve element 5 with a flange, (2) Russia 585's teaching to provide the base body 3 with a flange and (3) the suggestion from either Nurmi et al or Walrave et al to provide a stud with two flanges

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wherein the diameter of the upper flange near the hard tip is larger than the diameter of the lower flange.

16) Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Finnish 861/64 (FI 861/64) in view of Russia 585 (RU 2,117,585) as applied above and further in view of Nurmi et al (WO 91/00185) or Walrave et al (US 3,987,831).

As to claim 26, it would have been obvious to one of ordinary skill in the provide the sleeve element with a diameter larger than the diameter of the flange of the base body in view of (1) Russia 585's teaching to provide the sleeve element 5 with a flange, (2) Russia 585's teaching to provide the base body 3 with a flange and (3) the suggestion from either Nurmi et al or Walrave et al to provide a stud with two flanges wherein the diameter of the upper flange near the hard tip is larger than the diameter of the lower flange.

Remarks

17) The substitute specification filed 12-2-05 has not been entered because (1) there is no amendment requesting entry of the substitute specification filed 12-2-05, (2) there is no marked up copy of the original specification, and (3) there is no statement that the substitute specification contains no new matter. Also, the abstract filed 12-2-05 has not been entered since the preliminary amendment fails to request entry of the abstract on page 12 thereof.

Applicant's election with traverse of Species A (Figures 1-8 and Figure 10) and Subspecies #1 (Figures 1 and 2) in the reply filed on 6-1-10 is acknowledged. The traversal is on the ground(s) that the sleeve elements of Figures 1 and 2 can be made

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in the two pieces as in claim 34. This is not found persuasive because the sleeve element 20 of the elected species #1 (anti-skid spike in which the receiver section of the base body and the corresponding passage in the sleeve element are cylindrical as shown in Figures 1 and 2) is a single piece and, if the sleeve 20 of Figures 1 and 2 is made into two pieces, then the resulting multipart sleeve may be directed to the embodiment of Figure 8 but cannot be directed to the embodiment of Figures 1 and 2 having only the single sleeve 20.

The requirement is still deemed proper and is therefore made FINAL.

The remaining references are of interest.

18) No claim is allowed.

19) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/
Primary Examiner, Art Unit 1791

Steven D. Maki
August 7, 2010